

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) A plating-pretreatment solution to remove metals remaining on an insulating film of a film carrier tape in which a wiring pattern is formed on a surface of the insulating film and the film carrier tape is formed from a base obtained by sputtering nickel and/or chromium on the insulating film surface without interposing an adhesive layer and further depositing copper consisting essentially of an organic sulfonic acid, thiourea, fluoroboric acid and hypophosphorous acid.

2. (Original) The plating-pretreatment solution as claimed in claim 1, wherein the organic sulfonic acid is at least one compound selected from the group consisting of phenolsulfonic acid, methanesulfonic acid, ethanesulfonic acid, propanesulfonic acid, 2-propanesulfonic acid, 2-butanesulfonic acid, pentanesulfonic acid and chloropropanesulfonic acid.

3. (Original) The plating-pretreatment solution as claimed in claim 1, which comprises:

the organic sulfonic acid in an amount of 80 to 240 g/l,
thiourea in an amount of 80 to 240 g/l,
fluoroboric acid in an amount of 30 to 100 g/l, and
hypophosphorous acid in an amount of 30 to 100 g/l.

4. (Original) The plating-pretreatment solution as claimed in claim 1, which further comprises a surface active agent in an amount of not less than 10 g/l.

5. (Cancelled).

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/820,994

Paper Dated: June 9, 2008

In Reply to USPTO Correspondence of April 7, 2008

Attorney Docket No. 1217-043819

6. (Currently Amended) A plating-pretreatment method comprising contacting a film carrier tape in which a wiring pattern is formed on a surface of an insulating film and the film carrier tape is formed from a base obtained by sputtering nickel and/or chromium on the insulating film surface without interposing an adhesive layer and further depositing copper with a plating-pretreatment solution consisting essentially of an organic sulfonic acid, thiourea, fluoroboric acid and hypophosphorous acid to remove metals remaining on the insulating film.

7. (Original) The plating-pretreatment method as claimed in claim 6, wherein the organic sulfonic acid is at least one compound selected from the group consisting of phenolsulfonic acid, methanesulfonic acid, ethanesulfonic acid, propanesulfonic acid, 2-propanesulfonic acid, butanesulfonic acid, 2-butanesulfonic acid, pentanesulfonic acid and chloropropanesulfonic acid.

8. (Original) The plating-pretreatment method as claimed in claim 6, wherein the plating-pretreatment solution comprises:

the organic sulfonic acid in an amount of 80 to 240 g/l,

thiourea in an amount of 80 to 240 g/l,

fluoroboric acid in an amount of 30 to 100 g/l, and

hypophosphorous acid in an amount of 30 to 100 g/l.

9. (Original) The plating-pretreatment method as claimed in claim 6, wherein the plating-pretreatment solution further comprises a surface active agent in an amount of not less than 10 g/l.

10. (Original) The plating-pretreatment method as claimed in claim 6, wherein the film carrier tape is contacted with the plating-pretreatment solution at a temperature of 30 to 80°C for a period of 2 to 60 seconds.

11. (Cancelled).

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/820,994

Paper Dated: June 9, 2008

In Reply to USPTO Correspondence of April 7, 2008

Attorney Docket No. 1217-043819

12. (Original) The plating-pretreatment method as claimed in claim 6, which further comprises, after the treatment with the plating-pretreatment solution, a step of treating the film carrier tape with an acid treatment solution comprising 05 to 150 g/l of $K_2S_2O_8$, 5 to 20 ml/l of H_2SO_4 and 0 to 3 g/l of Cu at a temperature of 20 to 40°C for a period of 5 to 20 seconds.